UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/541,338	12/07/2005	Victor D. Geockner	27726-99611	7738

23644 7590 10/19/2006

BARNES & THORNBURG LLP
P.O. BOX 2786
CHICAGO, IL 60690-2786

EXAMINER	
RALIS, STEPHEN J	

ART UNIT	PAPER NUMBER
3742	

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/541,338	GEOCKNER ET AL.	
	Examiner	Art Unit	
	Stephen J. Ralis	3742	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *01 July 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *2-24 and 26-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *2-24 and 26-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 July 2005* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *7//01/2005*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Priority

1. Applicant's claim for domestic priority benefit of Provisional Application No. 60/438,110, filed 06 January 2003, is acknowledged and granted.

Information Disclosure Statement

2. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Drawings

3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "110" has been used to designate both a connector and a cooling cabinet. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top

margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

4. The drawings are objected to because "a left pump 84" and "a right pump 86" are mislabeled in the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

5. The disclosure is objected to because of the following informalities: page 8, line 3; the reference to "left pump" and "right pump" and line 17; "first and second concentration sensors" should correlate (i.e. left to first or second and vice versa).

Appropriate correction is required.

6. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The following title is suggested: Power Circuitry Incorporating both Foreign and Domestic Alternating Current Line Voltages for a Heated Beverage Apparatus.

Claim Objections

7. Claims 13, 30 objected to because of the following informalities:

Claim 13, line 2: "the treating element" should read –the heat element–.

Claim 30, line 5: " a range of AC voltages" should read –the range of AC voltages–; line 6: "an AC voltage" should read –the AC voltage–.

Claim 31, lines 8, 9: "a domestic AC voltage" should read –the domestic AC voltage–; lines 8, 10: "a foreign AC voltage" should read –the foreign AC voltage–

Appropriate correction is required.

Claim Rejections - 35 USC § 112

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claim 28 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

10. Claim 28 recites the limitation "the dispensing solenoid" in line 2. There is insufficient antecedent basis for this limitation in the claim. The claim is examined with the limitation being the afore mentioned "dispensing valve".

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 2, 3, 5, 6, 7, 11, 13, 16, 20 and 26-31 are rejected under 35 U.S.C. 102(b) as being anticipated by Herrick et al. (International Publication WO 00/11914).

Herrick et al. disclose a beverage heating apparatus that is operable either by a domestic AC voltage or by a foreign AC voltage and a method of heating a liquid using the apparatus (wall outlet 23 which provided 120 V – 480 V alternating electric power covers domestic and foreign AC voltages; page 16, lines 26-29), the beverage heating apparatus comprising: a container/tank for retaining a liquid to be heated (insulating tube 153 comprising inner electrode and outer electrode 157 for receiving and heating fluid and brewing chamber 186; page 23, line 23 – page 24, line 8) ; a power supply having an input that coupled directly to a domestic AC voltage when the beverage

heating apparatus is operated domestically and coupled directly to a foreign AC voltage when the beverage heating apparatus is operated in a foreign country, the power supply having a DC voltage output of substantially a predetermined value regardless of whether the input is coupled to a domestic AC voltage or a foreign AC voltage (domestic and foreign AC voltages as defined above and having a substantially predetermined DC voltage output via AC/DC converter 451 being controlled by voltage level controller 452; page 16, line 26 – page 17, line 25; or in the alternative electrical power supplier 251 and an electric power rectifier 257 being a SCR rectifier; page 26, lines 8-21); a heating element coupled directly to a domestic AC voltage when the beverage heating apparatus is operated domestically and coupled directly to a foreign AC voltage when the beverage heating apparatus is operated in a foreign country, the heating element being operable to heat the liquid retained in the container; a controller coupled to the DC voltage output to receive power from the power supply, the controller being configured to control the operation of the heating element (page 17, line 12 – page 18, line 23; see Figures 17, 18, 22).

As the reference meets all material limitations of the claims at hand, the reference is anticipatory.

With respect to the limitations of claims 2, 3, 5, 6, 7, 11, 16, 20 and 26, Herrick et al. further disclose the controller comprising a switch that is closeable to apply a specific AC voltage to the heating element if the beverage apparatus is operated in an area with the specific voltage and to apply the a different AC voltage to the heating element if the beverage heating apparatus is operated in a in an area with a different

AC voltage (duty cycle switch 455 inherently is closable providing a voltage based on the output of the AC/DC converter 451 and modulated signal generator 453; page 17, line 26 – page 128, line 15; see Figures 17, 18; or in the alternative electrical power supplier 251 and an electric power rectifier 257 being a SCR rectifier; page 26, lines 8-21; see Figure 23); the controller comprising a processor that signals the switch to close the switch (mina controller 21 controlling duty cycle output, D via signal generator 453 using microcontroller; page 19, line 17- page 20, line 2; microcontroller 253 controlling power rectifier 257 by ASIC chip, computer...; page 26, lines 8-21; see Figures 17, 18, 23); a solenoid to which the DC voltage output of the power supply is coupled and the solenoid being operable to dispense a beverage. (liquid pump 15 being a pump or solenoid and being electrically connected to the power supply and permitting flow of product; page 21, lines 19-20; see Figures 1, 17, 22); a valve to which the DC voltage output of the power supply is coupled (inlet and outlet sealants 159, 161 functioning as valves having an electrical and fluid seal controllable via electrical connections 163 and 167; page 23, lines 1-22); a motor to which the DC voltage output of the power supply is coupled (page 11, lines 10-12; page 27, lines 24-28); and a sensor coupled to a signal derived from the DC voltage output of the power supply (temperature sensor 19 and a conductance sensor; page 8, line 24 – page 9, line 19; page 18, line 24 - page19, line 16; see Figures 1, 17, 22).

Joint Inventors – Common Ownership Presumed

13. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claim Rejections - 35 USC § 103

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

15. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

16. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Herrick et al. (International Publication WO 00/11914) in view of Radley et al. (U.S. Patent No. 5,886,892).

The claims differ from Herrick et al. in specifically calling for the switch to be a triac. However, a triac switch utilized in controlling a low voltage mode or a high voltage mode power source, as described by Radley et al., is known in the art. Radley et al. teach that it is known to use a triac auto ranging circuit 32 comprising a drive circuit 42 and triac 40 to close and open (active or inactive) depending the power source supply mode (column 3, lines 23-35; column 4, lines 26-32, 33-52; column 5, lines 24-42; low power mode being 85 VAC to 140 VAC and high power mode being 180 VAC to 264 VAC; column 2, lines 57-63). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Herrick et al. with the triac switching mechanism of Radley et al, since Radley et al. state that such a modification would provide a conventional and well known method of handling both a low voltage and high voltage mode.

17. Claims 7-12 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herrick et al. (International Publication WO 00/11914) in view of Funk (U.S. Publication No. 2001/0048958).

The claims differ from Herrick et al. in explicitly calling for a concentrate dispenser within the beverage dispenser including a valve that is operable to dispense a beverage concentrate, a pump, having a rotatable shaft, that is operable to move the

beverage concentrate and a sensor senor sensing the speed at which the shaft rotates; and a display. However, a beverage dispenser comprising a concentrate dispenser including a valve that is operable to dispense a beverage concentrate, a pump, having a rotatable shaft, that is operable to move the beverage concentrate and a sensor senor sensing the speed at which the shaft rotates, as described by Funk, is known in the art. Funk teaches a concentrate dispenser (32) within the beverage dispenser (20) including a valve that is operable to dispense a beverage concentrate (gating device 62), a pump, having a rotatable shaft, that is operable to move the beverage concentrate (pump 60 being a peristaltic pump that inherently has a rotating shaft) and a sensor sensing the speed at which the shaft rotates (a variable speed pump 60 being controllable via a controller inherently has a sensor to control and sense the variable speeds; page 3, paragraph 27-28; see Figure 3) to precisely control amount of concentrate injected into the dilution stream of the beverage dispenser, thereby providing better control of the quality of the dispensed beverage. Funk further teaches a display (interface 36) to provide control of the controller (38) and view the system response accordingly (page 2, paragraph 20), thereby providing the user the necessary information to continually use the device. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Herrick et al. with the concentrate dispenser an control thereof of Funk to precisely control amount of concentrate injected into the dilution stream of the beverage dispenser, thereby providing better control of the quality of the dispensed beverage. It would have further been obvious to one of ordinary skill in the art at the time of the invention was made to modify Herrick et al. with the

display/interface of Funk to provide control of the controller and view the system response accordingly, thereby providing the user the necessary information to continually use the device.

18. Claims 14,15 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herrick et al. (International Publication WO 00/11914) in view of Greenwald et al. (U.S. Publication No. 2002/0130137).

The claims differ from Herrick et al. in explicitly calling for a cooling cabinet and a heat sink and temperature sensors sensing a portion of each component, and both being cooled by a fan coupled to the DC voltage output of the power supply. However, a beverage dispensing apparatus comprising a cooling cabinet and a heat sink and both being cooled by a fan coupled to the DC voltage output of the power supply, as described by Liverani et al., is known in the art. Liverani et al. teach a conventional heat exchanger (5, 34; page 2, paragraphs 31, 35) capable of instantaneously heating water. Liverani et al. further teach that a cooling cabinet (loading compartment 45) for mixing the hot water with the appropriate mixer may be associated with a heat sink (Peltier cell 48) and a cooling fan 50 to cool the heat sink and thereby in return cool the cooling cabinet to prevent the decay of the product, thereby increasing the quality and enjoyment of the dispensed beverage (page 1, paragraphs 7-16; page 2-3, paragraph 36). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Herrick et al. with the cooling cabinet / heat sink / fan

cooling configuration of Greenwald et al. to prevent the decay of the product, thereby increasing the quality and enjoyment of the dispensed beverage.

With respect to the limitation of the heat sink and cooling cabinet being associated with sensors, Herrick et al. teaches that it is known to utilize temperature sensors in beverage dispensing apparatus (temperature sensor 19 and a conductance sensor; page 8, line 24 – page 9, line 19; page 18, line 24 - page19, line 16; see Figures 1, 17, 22). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the temperature sensors of Herrick et al. to included sensing the temperatures of the cooling cabinet and heat sink of Herrick-Greenwald combination in order to provide a better closed loop control system.

19. Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Herrick et al. (International Publication WO 00/11914) in view of Greenwald et al. (U.S. Publication No. 2002/0130137) in view of Jarocki et al. (6,312,589).

The claims differ from Herrick et al. in calling for a light to which the DC voltage output of the power supply is coupled; an alarm to which the DC voltage output of the power supply is coupled; and an auxiliary power supply configured to convert the DC voltage output of the power supply to another power supply voltage. However, a beverage dispensing apparatus having a light to which the DC voltage output of the power supply is coupled; an alarm to which the DC voltage output of the power supply is coupled; and an auxiliary power supply configured to convert the DC voltage output of the power supply to another power supply voltage, as described by Jarocki et al., is

known in the art. Jarocki et al. teach a light (three color LED lamp indicators on the front of control box 45; column 8, lines 45-55; column 10, lines 25-44; see Figure 5D) and an alarm (column 8, lines 56-63; column 10, lines 44-50; see Figure 5E) configured and controlled by an alarm circuit (180) which is provided power by an auxiliary power supply configured to convert the DC voltage output of the power supply to another power supply voltage (column 9, lines 55-58) to provide warnings for display and/or readout by the user, thereby providing a safer beverage dispensing device. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Herrick et al. with the lamp, alarm and auxiliary power supply combination of Jarocki et al. to provide warnings for display and/or readout by the user, thereby providing a safer beverage dispensing device.

Prior Art

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

U.S. Patent No. 5,375,508 to Knepler et al. is another teaching of a beverage dispensing apparatus and method for with a heated water source

U.S. Patent No. 6,130,990 to Herrick et al. is another teaching of a beverage dispensing apparatus and method for utilizing a variation of power source ranges.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen J. Ralis whose telephone number is 571-272-6227. The examiner can normally be reached on Monday - Friday, 8:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robin Evans can be reached on 571-272-4777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Stephen J Ralis
Examiner
Art Unit 3742

SJR
October 4, 2006

ROBIN O. EVANS
PRIMARY EXAMINER
10/13/06